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Prevalence of Prescription Medication Use among Non-Pregnant Women of Childbearing Age and Pregnant Women in the United States – NHANES, 1999 – 2006

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Abstract

Objectives—Many prescription medications have limited information regarding safety for use during pregnancy. In order to inform research on safer medication use during pregnancy, we examined prescription medication use among women in the United States.

Methods—We analyzed data from the 1999–2006 National Health and Nutrition Examination Survey (NHANES) to estimate the prevalence of prescription medication use in the past 30 days among pregnant women and non-pregnant women of childbearing age (15–44 years) and to ascertain the most commonly reported prescription medications by women in these groups. We assessed how the most commonly reported medications differed among groups defined by selected demographic characteristics, including age, race/ethnicity, and markers of socioeconomic status.

Results—Prescription medication use in the past 30 days was reported by 22% of pregnant women and 47% of non-pregnant women of childbearing age. The most commonly reported prescription medications by NHANES participants differed somewhat by pregnancy status; allergy and anti-infective medications were more common among pregnant women, while oral contraceptives were more common among non-pregnant women. Use of prescription medication for asthma and thyroid disorders was reported by both groups.

Conclusions—Although prescription medication use in the previous 30 days was less common among pregnant women than non-pregnant women, its use was reported among almost 1 in 4 pregnant women. Many of the most common medications reported were for the treatment of chronic medical conditions. Given the potential impact of medications on the developing fetus, our data underscore the importance of understanding the safety of these medications during pregnancy.

Keywords

medication; pregnancy; women; prescription; NHANES

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INTRODUCTION

Treating medical conditions in pregnant women is complicated by the need to balance the potential risk of medication exposures to the developing fetus with the potential risks to the health of the mother and the fetus if a condition is not treated. In order to weigh these risks, women and health care providers need to have reliable information on the safety of medication use during pregnancy. Substantial research gaps regarding medication safety during pregnancy have been well documented (1–5). A key step to guide this research is to characterize medication use among pregnant women and women capable of becoming pregnant (often operationalized as non-pregnant women of childbearing age). Many European countries have documented the prevalence of medication dispensing in their populations using robust population-wide registry data sources (6–11). Capturing medication exposure information for the U.S. population must rely on data from multiple data sources, each with unique strengths and limitations.

Some North American-based data sources, primarily population-based case-control studies and health plan database studies, have documented the prevalence of medication use during pregnancy, from 60% up to nearly 90%, and an increase in medication use over time (12–14). The prevalence of medication use among non-pregnant women of childbearing age is not well-understood. Understanding medication use among this population is important because 51 percent of pregnancies in the U.S. are unintended (15) and many pregnancies are not recognized early in the first trimester (16) when organogenesis occurs (17). A survey of an adult population in the U.S. conducted in 1998–1999 found that 82% of women age 18–44 years reported any use of a prescription or over-the-counter medication or a vitamin, mineral, or herbal supplement; results were not stratified by pregnancy status, however (18).

Our objective for the current investigation was to examine the prevalence of prescription medication use among women in the National Health and Nutrition Examination Survey (NHANES), a nationally representative cross-sectional survey (19–22). Because NHANES oversampled pregnant women in 1999–2006 (23), we were able to estimate prevalence of prescription medication use among both pregnant women and non-pregnant women of childbearing age and to identify the most commonly reported prescription medications used in the past 30 days by each group.

METHODS

Data Source

We analyzed data from NHANES, an ongoing, multistage sample survey used to monitor the health and nutritional status of the U.S. civilian, non-institutionalized population. Detailed methods for NHANES are provided elsewhere (19–22). Briefly, NHANES consists of an in-person interview and a physical examination. NHANES is currently conducted annually, and data are publicly released in two-year cycles. Data for this analysis came from the 1999 – 2006 cycles. All study participants provided informed consent, and the study protocol received approval from the National Center for Health Statistics Ethical Review Board.

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During the interview participants were asked, “In the past month, have you used or taken medication for which a prescription is needed?” Participants reporting prescription medication use were then asked to show the prescription medication container, if available, so that the interviewer could record relevant information; no exclusions were made based on availability of the prescription container. Reported medications were classified using Cerner Multum’s Lexicon Plus® drug database. Dietary supplements reported in response to this question were not included in the analysis.

We used the NHANES variable “RIDEXPRG” to ascertain pregnancy status. A woman was coded as pregnant if she reported being pregnant in the questionnaire or if she tested positive during a urine pregnancy test. We included data from the 1999 – 2006 cycles because during this time period pregnant women were oversampled in NHANES, providing sufficient statistical stability to make nationally representative estimates. All pregnant women screened during these years were included in the survey. Beginning in the 2007 – 2008 survey cycle, pregnant women were no longer oversampled, and the number of pregnant women included in the survey population dropped dramatically. We defined non-pregnant women of childbearing age as those women who did not report being pregnant or test positive on the pregnancy test and who were age 15 to 44 years (only 6 pregnant women were outside of this age range); the term “non-pregnant women” will be used to refer to this group. Women for whom pregnancy status could not be determined were excluded (N=743).

Analysis

Analyses were stratified by pregnancy status. Because research has shown that fetal effects of medication use during pregnancy may differ among various medications within a particular class (24), our study focused on specific medications rather than on broader medication classes or anatomical classification codes. We identified the reported prescription medication products by their generic drug names. We did not distinguish between different salts of the same active ingredient and combined all insulin-containing medications. We calculated the appropriate 8-year sampling weights (25). We estimated the distribution of the total number of prescription medications reported and determined which prescription medications were most commonly reported. We estimated the percentage of non-pregnant women that used each of these medications. Sample size was not sufficient to allow us to report these percentages for pregnant women, or to compare the percentages of pregnant and non-pregnant women that reported using specific medications. We identified the five most common medications reported among non-pregnant women stratified by categories defined by age, race/ethnicity, education level, poverty income ratio (PIR, defined as the ratio of self-reported family income to federal poverty threshold, accounting for family size, year, and state; higher values indicate higher socioeconomic status (26)), parity, and breastfeeding status; we were not able to consider these categories for pregnant women due to limited sample size. Analyses were conducted in SAS-callable SUDAAN version 11 (Research Triangle Institute, Research Triangle Park, NC, USA) using the “SDMVPSU” and “SDMVSTRA” variables for the masked variance pseudo-primary sampling unit and masked variance pseudo-stratum, respectively, to account for the complex survey design in our estimation of variance.

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RESULTS

The 1999 – 2006 NHANES included data on 1,350 pregnant women and 5,484 non-pregnant women. Based on weighted percentages, over half of the pregnant women were between the ages of 25 and 34, with fewer than 15% of women in this group age 35 years or older. In contrast, almost 40% of non-pregnant women were age 35 years or older. A higher percentage of non-pregnant women were non-Hispanic white, and a higher percentage of pregnant women were Mexican American. We observed little difference in the highest level of education attained or PIR category among pregnant and non-pregnant women. Not including their current pregnancy, pregnant women were more likely to have had a previous pregnancy than non-pregnant women. Among non-pregnant women, 2.5% reported that they were currently breastfeeding. Among pregnant women who self-reported that they were pregnant, approximately 24% reported being in their first trimester, 40% in their second trimester, and 36% in their third trimester (Table 1).

Prescription medication use in the past 30 days was reported among 22.2% of pregnant women (95% CI: 19.0%, 25.8%); non-pregnant women reported prescription medication use approximately twice as frequently (47.0%, 95% CI: 45.0%, 49.0%) (Figure 1). Among pregnant women who reported prescription medication use in the past 30 days, 72.8% (95% CI: 61.7%, 81.6%) reported use of only one medication. Among non-pregnant women who reported prescription medication use in the previous 30 days, about half reported use of one medication (47.7%, 95% CI: 45.7%, 49.8%) and half reported the use of two or more (52.3%, 95% CI: 50.2%, 54.4%). We were not able to further categorize the non-pregnant women reporting 2 or more medications (e.g. 2 vs. 3 or more) because of small numbers.

Among pregnant women the most commonly reported medication was levothyroxine, which is used to treat thyroid disorders. Three antibiotics – amoxicillin, nitrofurantoin, and the combination of sulfamethoxazole and trimethoprim – were among the most common prescription medications used by pregnant women. Certain asthma and allergy medications were also among the most commonly reported prescription medications; specifically albuterol, montelukast, cetirizine, budenoside, and promethazine, the last of which is more commonly prescribed for nausea and vomiting. Insulin was also among the 10 most frequently reported medications taken in the previous 30 days among pregnant women (Table 2). We were not able to estimate the percentage of pregnant women taking these medications, or compare these percentages to the percentages for non-pregnant women, due to small sample size.

Among non-pregnant women the most commonly reported prescription medication used in the previous 30 days was the combination of ethinyl estradiol and norgestimate, an oral contraceptive, use of which was reported by 3.7% of women in this group (95% CI: 2.9%, 4.7%). Two other oral contraceptives – the combination of ethinyl estradiol and norethindrone and the combination of ethinyl estradiol and levonorgestrel – were also among the 10 most commonly reported prescription medications used in the previous 30 days by non-pregnant women, used by 2.7% and 2.2%, respectively. Three selective serotonin reuptake inhibitors (SSRIs), used to treat conditions including depression and anxiety, were among the most commonly reported medications for non-pregnant women,

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each reported by approximately 2% of women in this group. Pain relievers, specifically prescription-strength ibuprofen, used by 2.7% (95% CI: 2.2%, 3.4%), and the combination of acetaminophen and hydrocodone, used by 2.2% (95% CI: 1.7%, 2.8%), were also among the 10 prescription medications most commonly reported by non-pregnant women (Table 2).

Only levothyroxine and albuterol were included in the list of the 10 most commonly reported prescription medications used in the past 30 days among both pregnant women and non-pregnant women. Levothyroxine was reported by 3.4% (95% CI: 2.7%, 4.3%), and albuterol was reported by 2.9% (95% CI: 2.3%, 3.6%) of non-pregnant women.

For non-pregnant women, oral contraceptives were more often in the top five reported prescription medications among younger women, women with higher education, women in a higher PIR category, non-Hispanic white women, and nulliparous women. Norethindrone, a progestin-only oral contraceptive, was in the list of the five most common medications for breastfeeding women. Prescription pain medications and albuterol were present among the five most common medications for the majority of sociodemographic categories considered. For non-pregnant women age 35 to 44 years levothyroxine and fluoxetine were among the five most commonly reported prescription medications. Non-Hispanic white women were the only racial/ethnic group with SSRIs among the five most commonly reported medications. Hydrochlorothiazide, an antihypertensive, was reported only in the list of the five most common medications for non-Hispanic blacks; amoxicillin was reported only among the top five most common medications for Mexican Americans, and cetirizine, an antihistamine, was reported only in the list of the most common medications for the “other” racial/ethnic category (Table 3).

DISCUSSION

We observed that reported prescription medication use in the past 30 days was half as common among pregnant women compared to non-pregnant women, and pregnant women who reported prescription medication use were more likely to report use of only one prescription medication. These differences have several possible explanations. Approximately 17% of U.S. women age 15–44 years used oral contraceptives in 2006–2008 (27), but given that these medications are designed to prevent pregnancy they are contraindicated and rarely used during pregnancy. Women may discontinue medication use upon pregnancy recognition, healthcare providers may be less likely to prescribe medications to pregnant women, or pregnant women may be less likely to take prescribed medications (28–30). In a survey of obstetrician gynecologists, Morgan and colleagues found that almost 50% of survey respondents reported that they did not prescribe medications to treat certain maternal conditions because of lack of data on medication safety (31). Pregnant women may assume that over-the-counter (OTC) medications are safer than prescription medications and may manage symptoms with OTC medications not captured in this analysis. Werler and colleagues reported increased prevalence of use for specific OTC medications during pregnancy when compared to the three months before pregnancy (14). Lastly, the fact that in our sample non-pregnant women were generally older than pregnant women could help to explain their higher medication use; older age is associated with increased prescription medication utilization (32, 33).

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Differences in the types of medications most frequently reported by pregnant and non-pregnant women were also observed. Oral contraceptives were the most frequently reported prescription medications among non-pregnant women, comprising three of the 10 most common medications reported by this group. This observation is consistent with previously published reports that oral contraceptives are the most frequently used prescription medications among U.S. women age 18–44 years (18, 27). As expected, oral contraceptives were not among the most commonly used medications among pregnant women during the past 30 days. We conducted a sensitivity analysis in which oral contraceptives were excluded. Fexofenadine, an allergy medication, amoxicillin, an antibiotic, and bupropion, a medication used to treat depression or for smoking cessation, were then included in the list of 10 most common medications taken by this group.

We observed other noteworthy differences in medications used between pregnant and non-pregnant women. Pain medications and SSRIs were among the most commonly reported medications by non-pregnant woman, but not by pregnant women. This difference may indicate reluctance on the part of healthcare providers to prescribe medications for certain clinical indications during pregnancy (31). The use of opioid pain medications among women in the U.S. is a growing concern, with a 415% increase in overdose deaths between 1999 and 2010 (34). A recent analysis showed that the proportion of pregnant women covered by Medicaid who filled prescriptions for an opioid during pregnancy increased from 18.5% in 2000 to 22.8% in 2007 (35). Though not among the most commonly used medications during pregnancy, the use of opioid pain medications during pregnancy is also of concern due to the challenges of treating neonatal abstinence syndrome (36, 37) and the potential for increased risk of certain birth defects (selected heart defects, spina bifida, and gastroschisis) (38). Insulin was one of the most common medications reported by pregnant women, which is likely related to its use in managing gestational diabetes, which is estimated to occur in 2 – 10% of pregnancies (39). Some of the differences we observed may reflect uncertainty on the part of healthcare providers on how best to weigh the risks and benefits of medication use during pregnancy. Differences in sociodemographic characteristics, particularly age, may also contribute to differences in patterns of prescription medication use.

The frequently reported use of albuterol and levothyroxine in both groups of women suggests that asthma and certain thyroid conditions are among the more prevalent chronic conditions requiring prescription medication for woman of childbearing age. In an analysis of multiple national health surveys using data from 1997–2001, the prevalence of current asthma was estimated to be between 3.7%–8.3% and 5.0%–9.4%, among pregnant women and non-pregnant women of childbearing age, respectively(40). Previously published studies report the prevalence of overt hypothyroidism in pregnancy to be 1.4%–2.2% (41–44). Both untreated asthma and hypothyroidism have been associated with maternal and fetal complications (45–48). In addition, physiological and endocrine changes throughout pregnancy may increase symptom frequency or severity necessitating close clinical monitoring to maintain the efficacy of a given treatment throughout gestation (49–51). The prevalence of medication use to treat these conditions highlights the importance of understanding the safety profile of these medications during pregnancy and how best to manage these conditions in pregnant women.

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Previously published studies report a higher prevalence of prescription medication use during pregnancy than was observed in our analysis, 64%–70% (12, 13). Several factors likely contributed to the lower prevalence of use that we observed (22%), with the greatest being that the time period of use queried in NHANES was only the previous 30 days, rather than the entire pregnancy. In addition, in the current analysis medication use was recorded based on women's self-report in response to a single question within a structured interview. Previous studies have utilized data from multiple medication-specific questions or large health maintenance organization prescription databases. However, our results regarding the most commonly reported prescription medications used during pregnancy are similar to results in previously published reports (5, 12, 13).

This analysis contributes to the literature by providing updated prevalence estimates for recent prescription medication use among a nationally representative sample of non-pregnant women of childbearing age. A 1998–1999 U.S. survey found that 46% of women 18–44 years of age reported using at least one prescription medication within the past week (18). Similar to our findings, oral contraceptives, levothyroxine, albuterol, and SSRIs were among the most frequently reported prescription medications in that study. Medication use among non-pregnant women of childbearing age is important to understand because over half of pregnancies are unintended according to 2008 U.S. data (15). Pregnancy recognition can take several weeks(16) and therefore understanding prescription utilization patterns among non-pregnant women of childbearing age is important to anticipating unintentional medication exposures during the first trimester, a critical time of organogenesis (17).

We observed notable differences in patterns of contraceptive use among non-pregnant women (Table 3). When stratified by race/ethnicity, oral contraceptives were reported among the five most commonly reported prescription medications only for non-Hispanic white women. Previous studies have reported that reproductive health service utilization varies by sociodemographic characteristics; in particular, non-white women are less likely to use contraceptives overall and use different contraceptive methods than non-Hispanic white women (27, 52). Contraceptive methods that do not require a prescription (e.g. condoms) or long-acting reversible contraceptive methods (e.g., subdermal contraceptive implant) would not be captured in our results. In addition, previous studies have reported that non-white women have higher rates of chronic disease, including asthma, diabetes, and hypertension (46, 53, 54). Therefore, non-white women may report using a greater total number of prescription medications compared to non-Hispanic white women, obscuring the frequency of oral contraceptive use among these groups in our analysis.

A strength of the current analysis is that the NHANES data are from a nationally representative, population-based sample of U.S. pregnant and non-pregnant women. NHANES oversampled pregnant women during the 1999–2006 survey cycles. The large number of non-pregnant women in our sample allowed us to estimate the prevalence of use of specific medications and to identify the most commonly reported medications among subgroups of this population.

This study was subject to certain limitations. Information on prescription medication use in the previous 30 days was based on self-report. However, prescription medication containers

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were checked by trained interviewers which may have improved the accuracy of reported prescriptions, and the data captured reflect medications actually taken by the women, rather than relying on prescription dispensation records. In addition, the fact that participants were asked to recall only a short time period (30 days) may have assisted with accuracy. However, because participants were only queried about the previous 30 days, we were not able to assess prescription medication use throughout pregnancy. Because of the limitation to the previous 30 days, our results for the medications used by pregnant women are likely to underrepresent medications to treat acute symptoms or illnesses and are more likely to represent maintenance medications that are taken routinely. Pregnant women in their first trimester were also underrepresented in the NHANES sample because women had to be aware of their pregnancy status to be oversampled and included in the survey. Although the sample size was sufficient to estimate the percentage of pregnant women who reported taking a prescription medication in the past 30 days, the NHANES sample size was not sufficient to estimate the percentage of pregnant women taking specific medications or to allow for comparisons between these percentages in pregnant and non-pregnant women. Given that the total number of pregnant NHANES participants reporting each medication was relatively small (all N<25), the list of the most common medications should be interpreted with caution. Another limitation of the NHANES data is that it does not capture use of OTC medications, which is also important when considering exposure and safety during pregnancy.

In 2013 the Centers for Disease Control and Prevention convened an expert meeting to develop a systematic approach for evaluating and synthesizing existing data on medication use in pregnancy (55). This initiative, called Treating for Two, seeks to prevent adverse pregnancy outcomes related to maternal health conditions during pregnancy and to improve maternal health by providing women and their health care provider with the information they need for clinical decision making (see http://www.cdc.gov/pregnancy/meds/treatingfortwo/). Gaps in knowledge identified by the proposed review process could help to set a research agenda for conditions and medications that are important to investigate in the future. Given the observed prevalence of prescription medication use in pregnant women and non-pregnant women of childbearing age, our data support the need for further studies investigating the safety profile of medications commonly used during pregnancy and among non-pregnant women of childbearing age. It will be important to repeat analyses of this nature with other U.S. data sources and to track trends and detect changing usage patterns as new medications come onto the market. Our findings document the importance of developing a broad evidence base with sufficient data to inform clinical decision-making and a need for accessible clinical guidelines to treat common conditions during pregnancy.

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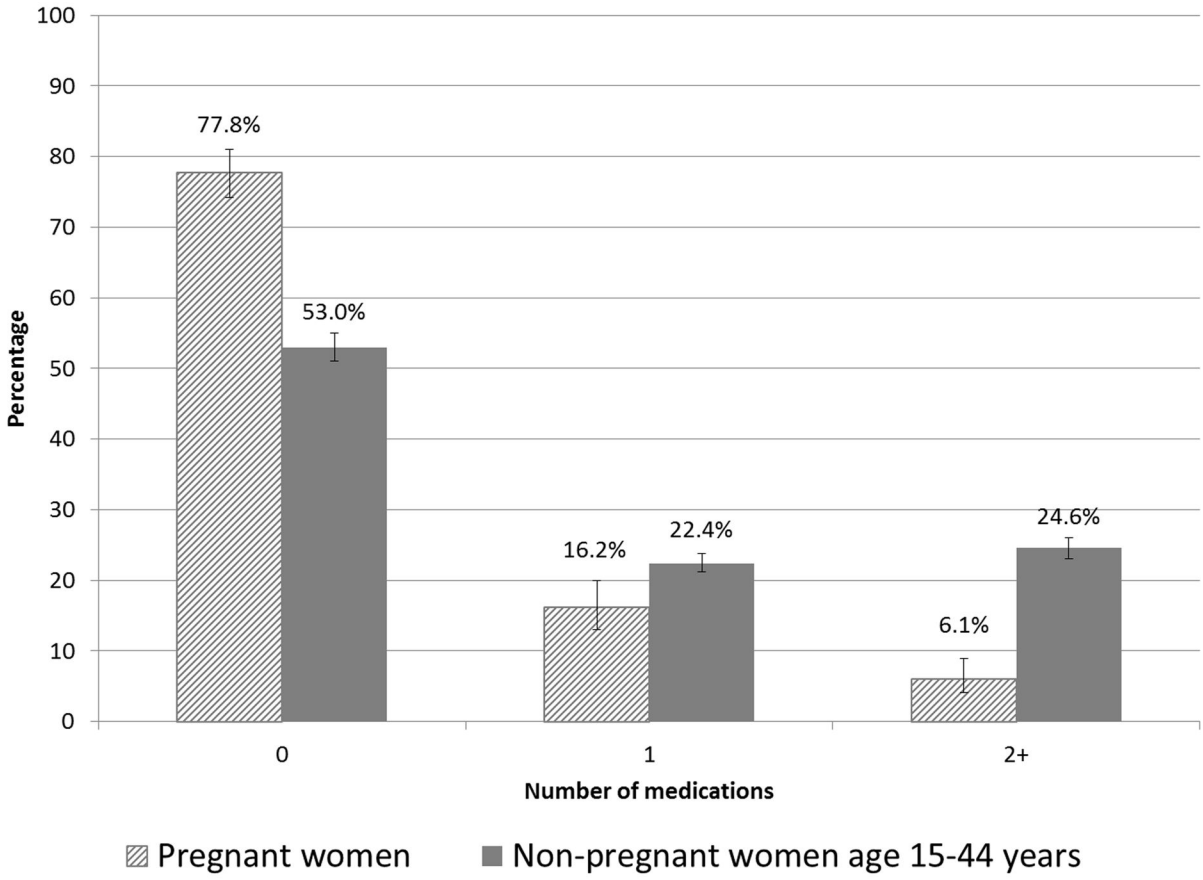

Figure 1.

Distribution of the number of prescription medications reported to have been taken in the previous 30 days among U.S. pregnant women and non-pregnant women of childbearing age, National Health and Nutrition Examination Survey (NHANES), 1999–2006

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Table 1

Characteristics of U.S. non-pregnant women of childbearing age and pregnant women participating in the National Health and Nutrition Examination Survey (NHANES) 1999–2006

	Non-pregnant women aged 15–44 years		Pregnant women	
	N[a]	Percentage[b]	N[a]	Percentage[b]
Total	5484	100	1350	100
Age group (years)				
<25	2781	31.1 (29.4, 32.8)	546	34.3 (30.7, 38.0)
25–34	1239	30.0 (28.0, 32.0)	676	51.3 (46.7, 55.9)
35+	1464	39.0 (36.8, 41.2)	128	14.4 (11.0, 18.7)
Race/ethnicity				
Non-Hispanic white	2056	65.3 (61.9, 68.6)	599	54.9 (49.1, 60.6)
Non-Hispanic black	1427	13.4 (11.3, 15.8)	211	15.9 (12.3, 20.3)
Mexican American	1520	9.4 (7.9, 11.2)	395	15.9 (13.0, 19.3)
Other race/ethnicity	481	11.9 (9.8, 14.4)	145	13.3 (9.3, 18.6)
Education				
Less than high school	2324	24.3 (22.7, 25.9)	424	23.3 (19.7, 27.3)
High school	1111	22.4 (20.7, 24.1)	300	19.6 (16.1, 23.6)
More than high school	2044	53.3 (51.0, 55.6)	624	57.2 (52.6, 61.6)
Missing	5		2	
Poverty Income Ratio[c]				
0–1.30	1891	26.9 (24.6, 29.3)	436	26.8 (22.7, 31.4)
1.31–3.50	1875	36.9 (34.7, 39.1)	442	38.2 (34.3, 42.2)
≥3.51	1356	36.3 (33.7, 38.9)	373	35.0 (30.2, 40.2)
Missing	362		99	
Parity				
0	2571	40.7 (38.3, 43.3)	402	34.6 (29.3, 40.3)
1+	2415	59.3 (56.8, 61.8)	759	65.4 (59.7, 70.7)
Missing	498		189	
Breastfeeding Status				
Reported currently breastfeeding	177	2.5 (1.9, 3.3)	N/A	

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	Non-pregnant women aged 15–44 years		Pregnant women	
	N[a]	Percentage[b]	N[a]	Percentage[b]
Did not report currently breastfeeding	5307	97.5 (96.7, 98.2)		
Trimester[d]				
1	N/A		210	23.8 (20.0, 28.1)
2			446	40.0 (35.1, 45.1)
3			413	36.2 (31.1, 41.6)
Missing[e]			281	

[a] Unweighted

[b] Weighted; accounted for complex survey design

[c] Poverty income ratio is an index for the ratio of family income to poverty, using poverty guidelines from the Department of Health and Human Services (23).

[d] Pregnant women were oversampled in the 1999–2006 NHANES survey cycles. All pregnant women screened were included in the survey. A woman had to know that she was pregnant to report it in the screening questionnaire, and therefore there are fewer women in their first trimester in these cycles of NHANES because if they didn't know they were pregnant they could not be oversampled into the survey.

[e] Trimester of pregnancy was ascertained through the reproductive questionnaire, and only asked of women who attended the Mobile Examination Center (MEC) and who reported that they were currently pregnant. 76 women who were pregnant did not attend the MEC; 154 women who were pregnant and attended the MEC did not answer the question as to whether they were currently pregnant, and were therefore not asked for their month of pregnancy; 4 women who responded that they were currently pregnant reported that they did not know their month of pregnancy; 37 women who were pregnant reported that they were not pregnant, and therefore were not asked for the month of their pregnancy (they were identified as pregnant through the urine test); 10 women reported that they did not know if they were currently pregnant, and they were not asked for their month of pregnancy

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Table 2

Most commonly reported prescription medications used in the previous 30 days among non-pregnant women of childbearing age (15–44 years) and pregnant women in the National Health and Nutrition Examination Survey (NHANES), 1999–2006

Rank[a]	Medication	Number of women reporting use[b]	Percentage of women reporting use[c]	Typical indication
Non-pregnant women age 15–44 y				
1	Ethinyl estradiol/norgestimate[d]	155	3.7 (2.9, 4.7)	Contraception
2	Levothyroxine	115	3.4 (2.7, 4.3)	Thyroid disorder
3	Albuterol	149[e]	2.9 (2.3, 3.6)	Asthma
4	Ibuprofen (prescription strength)	124[e]	2.7 (2.2, 3.4)	Pain
5	Ethinyl estradiol/norethindrone[d]	96	2.7 (2.1, 3.4)	Contraception
6	Ethinyl estradiol/levonorgestrel[d]	83	2.2 (1.6, 2.9)	Contraception
7	Acetaminophen/hydrocodone[d]	94[e]	2.2 (1.7, 2.8)	Pain
8	Fluoxetine	64	2.1 (1.6, 2.7)	Depression/Anxiety
9	Sertraline	73	1.9 (1.5, 2.3)	Depression/Anxiety
10	Paroxetine	60	NE[f]	Depression/Anxiety
Pregnant women				
1	Levothyroxine	24	NE[f]	Thyroid disorder
2	Amoxicillin	21		Infection
3	Insulin	12[e]		Diabetes
4	Nitrofurantoin	26		Infection
5	Albuterol	28		Asthma
6	Promethazine	13		Nausea/Allergy
7	Cetirizine[g]	8		Allergy
8	Montelukast	5		Asthma/Allergy
9	Sulfamethoxazole/trimethoprim[d]	4		Infection
10	Budesonide	2		Asthma/Allergy

[a] Rank based on weighted number of women reporting use

[b] Unweighted

[c] Weighted; accounted for complex survey design

[d] Combination product

[e] 8 women reported albuterol twice; 1 woman reported ibuprofen twice; 1 woman reported acetaminophen; hydrocodone twice; 7 women reported insulin twice

[f] Not estimable; the degrees of freedom were less than 12 and the relative standard error was >30%

[g] Became available without a prescription in 2006

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Table 3

Five most commonly reported prescription medications used in the previous 30 days[a] among selected categories of non-pregnant women of childbearing age (15–44 y) in the National Health and Nutrition Examination Survey (NHANES), 1999–2006

AGE GROUP			
15–25 years	*25–34 years*		*35–44 years*
Ethinyl estradiol/norgestimate[b]	Ethinyl estradiol/norgestimate[b]		Levothyroxine
Albuterol	Ethinyl estradiol/norethindrone[b]		Fluoxetine
Ibuprofen	Albuterol		Ibuprofen
Ethinyl estradiol/norethindrone[b]	Ethinyl estradiol/levonorgestrel[b]		Acetaminophen/hydrocodone[b]
Ethinyl estradiol/levonorgestrel[b]	Ibuprofen		Albuterol
RACE/ETHNICITY			
Non-Hispanic white	*Non-Hispanic black*	*Mexican American*	*Other race/ethnicity*
Ethinyl estradiol/norgestimate[b]	Albuterol	Ibuprofen	Albuterol
Levothyroxine	Acetaminophen/hydrocodone[b]	Levothyroxine	Levothyroxine
Ethinyl estradiol/norethindrone[b]	Ibuprofen	Albuterol	Ibuprofen
Ibuprofen	Hydrochlorothiazide	Acetaminophen/hydrocodone[b]	Metformin
Fluoxetine	Metformin	Amoxicillin	Cetirizine[c]
EDUCATION LEVEL			
Less than high school	*High school graduate or GED*[d]		*More than high school*
Albuterol	Albuterol		Ethinyl estradiol/norgestimate[b]
Ibuprofen	Levothyroxine		Levothyroxine
Paroxetine	Ethinyl estradiol/norgestimate[b]		Ethinyl estradiol/norethindrone[b]
Ethinyl estradiol/norgestimate[b]	Acetaminophen/hydrocodone[b]		Ethinyl estradiol/levonorgestrel[b]
Acetaminophen/hydrocodone[b]	Sertraline		Ibuprofen
POVERTY INCOME RATIO (PIR)[e]			
0 ≤ PIR ≤ 1.30	*1.31 ≤ PIR ≤ 3.50*		*PIR ≥ 3.51*
Albuterol	Levothyroxine		Ethinyl estradiol/norgestimate[b]

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Ibuprofen	Ethinyl estradiol/norgestimate[b]	Levothyroxine
Acetaminophen/hydrocodone[b]	Ibuprofen	Ethinyl estradiol/norethindrone[b]
Ethinyl estradiol/norgestimate[b]	Ethinyl estradiol/norethindrone[b]	Ethinyl estradiol/levonorgestrel[b]
Sertraline	Acetaminophen/hydrocodone[b]	Fluoxetine
PARITY		
Nulliparous		*Parous*
Ethinyl estradiol/norgestimate[b]		Levothyroxine
Ethinyl estradiol/norethindrone[b]		Ibuprofen
Albuterol		Albuterol
Ethinyl estradiol/levonorgestrel[b]		Acetaminophen/hydrocodone[b]
Sertraline		Fluoxetine
REPORTED BREASTFEEDING STATUS		
Currently breastfeeding		*Not currently breastfeeding*
Ibuprofen		Ethinyl estradiol/norgestimate[b]
Levothyroxine		Levothyroxine
Acetaminophen/oxycodone[b]		Albuterol
Norethindrone		Ethinyl estradiol/norethindrone[b]
Albuterol		Ibuprofen

[a] Based on weighted number of women reporting use; listed in descending order

[b] Combination product

[c] Became available without a prescription in 2006

[d] GED: General Education Development or other comparable high school equivalency degree

[e] Poverty income ratio is an index for the ratio of family income to poverty, using poverty guidelines from the Department of Health and Human Services (23).